REMARKS/ARGUMENTS

Claims 8-20 are currently pending in this application, as amended. By the present amendment, claims 8, 17 and 18 have been amended and non-elected claims 21-27 have been canceled. Additionally, an amendment has been made to the specification in order to remove references to specific claim numbers Applicant submits that no new matter has been introduced into the application by these amendments.

Restriction Requirement

In the Action, the election of claims 8-20 for prosecution on the merits in this application was noted. Applicant affirms this election. Further, non-elected claims 21-27, which were drawn to the underground pipe assembly in accordance with the invention, have been canceled, subject to being re-filed in a divisional application.

Claim Rejections – 35 U.S.C. §112

Claims 17 and 18 were rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement.

In response, these claims have been amended so that they no longer refer to "urging at least one panel against the carrier." The language in claim 18 has been amended to recite the flexible hose which is used to press the carrier into position prior to setting of the matrix in order to hold the carrier in position in the pipe. Accordingly, withdrawal of the Section 112 rejection of claims 17 and 18 is respectfully requested.

Claim Rejections – 35 U.S.C. §102

Claims 8-12, 15 and 16 were rejected under 35 U.S.C. §102(b) as anticipated by WO 02/011072 to Andersson et al. Applicant respectfully traverses this rejection.

As amended, claim 8 is directed to a method of effecting a setting of a heat-hardenable matrix in at least one substantially strip-shaped elongated carrier which confines at least one conduit and is adjacent to an internal surface of a pipe which is adapted to be embedded in the ground, with the method comprising inserting the strip-shaped elongated carrier, which has a width defined by two side edges, into the pipe and locating the carrier in the pipe with the surface of the carrier between the edges contacting the internal surface of the pipe, and conveying only through the at least one conduit and not through a remaining portion of the pipe outside of the carrier, a fluid at a temperature which suffices to effect a setting of the matrix.

In contrast, Andersson et al. does not teach placing a carrier strip inside a pipe, but rather inserts a flexible sleeve (2) into a pipe, with flexible tubes (5, 6) joined to and extending along the inside of the sleeve (2). Here, it is specifically noted that Fig. 1A of Andersson et al. shows the sleeve prior to being everted during installation, and the installed configuration is made clear in Figs. 2 – 4 and 6. In order to activate the hardenable material the sleeve (2) must be inflated and expanded via a heated medium, to the extent that heat sealing is used as is asserted in the Action, such that the flexible sleeve (2) as well as the at least one flexible tube (5, 6) are expanded out to the full diameter of the fluid carrying duct (20) in order to form the finished liner. As shown in Figure 4, the flexible sleeve (2) and the channels (25, 26) remain in position while tubes (5, 6) can be removed. This reference is in accordance with the prior art described in the background section of

the present application and suffers from the same problem. Namely, it is necessary to fill the entire tube (2) with a hot medium, usually hot water, in order to heat set the matrix material used to bind the flexible sleeve (2) as well as the hardenable material (7) used to form the separate channels (25, 26) of Andersson et al. into position in the pipe.

In contrast, amended claim 8 clearly distinguishes over this type of arrangement by requiring the strip-shaped elongated carrier to have a width defined by two side edges, which is installed into the pipe with the surface of the carrier between the edges contacting the internal surface of the pipe. There is no need to repair and/or reduce the inside area of the pipe by adding a sleeve thickness around the entire periphery. The flexible sleeve (2) of Andersson et al. cannot meet this requirement as it is an entire flexible insert that is intended to form an inner liner around the entire inner periphery of the pipe (20). Additionally, the hardenable material (7) of Andersson et al. is not in a position to contact the inside of the pipe, but rather is attached to the inside of the flexible sleeve (2) and thus is not in contact with the inside of the pipe. Further, in order to expand and attach the liner (1) of Andersson et al., the entire sleeve (2) must be expanded and inflated with a pressurized, heated fluid or air. This requires a tremendous amount of energy in order to heat the entire amount of fluid used to inflate the sleeve (2). In contrast, in the present invention a fluid at a temperature which suffices to affect a setting of the matrix is conveyed only through the at least one conduit in the strip-shaped elongated carrier, not through a remaining portion of the pipe outside of the carrier. This cannot be met by Andersson et al. In the present case, contrary to all of the cited references, the heated fluid used to set the matrix is not guided through a liner which fills the entire pipe, but only through the conduits in the strip-shaped elongated carrier which, in the present invention, are used to install data or other

lines within existing sewage pipes. This results in only a very small amount of hot water, steam or other heated medium being required in order to cure the matrix forming the carrier. Accordingly, withdrawal of the Section 102 rejection of claim 8 is respectfully requested.

Claims 9-12, 15 and 16 depend directly or indirectly from claim 8 and should be similarly patentable.

Further, with respect to claim 16, this claim also recites urging the at least one carrier against at least one selected portion of the internal surface of the pipe by introducing a radially expansible hose into the pipe and inflating the hose against the carrier. This cannot be met by Andersson et al. as the sleeve (2) is between the pipe and the hardenable material (7) which is used to form the channels (25, 26).

Claim Rejections – 35 U.S.C. §103

Claims 13 and 14 were rejected as unpatentable over the combination of Andersson et al. and U.S. 6,206,993 to Kiest et al. Applicant respectfully traverses this rejection.

Claims 13 and 14 both depend from claim 8 and recite a specific movement of the fluid utilized to set the matrix of the carrier in order to set it in position. Kiest et al. is directed to an apparatus for inserting a lining material into a pipe in which fluid is pumped into and out of an inflation bladder. However, there is no suggestion or disclosure of pumping fluid into and out of the conduit defined within a strip-shaped carrier which is held in place within a pipe via a separate inflatable bladder. Additionally, Kiest et al. do not address the deficiencies with respect to Andersson et al. as discussed above.

Claims 17 and 18 were rejected under 35 U.S.C. §103 as unpatentable over the combination of Andersson et al. and U.S. 5,263,515 to Goodale. Applicant respectfully traverses this rejection.

Claims 17 and 18 depend directly or indirectly from claim 8 and should be similarly patentable for the reasons noted above in connection with claim 8. Goodale is cited as teaching plates or panels for expanding inside of a tube in order to affect a repair. However, Goodale does not address any of the above-noted deficiencies with respect to Andersson et al. Accordingly, withdrawal of the Section 103 rejections of claims 17 and 18 is respectfully requested.

Claims 19 and 20 were rejected under 35 U.S.C. §103 as unpatentable over the combination of Andersson et al. and U.S. 5,674,030 to Sigel. Applicant respectfully traverses this rejection.

Claims 19 and 20 depend directly or indirectly from claim 8 and are similarly patentable for the reasons noted above in connection with claim 8. Sigel is cited as teaching a pipe repairing machine to advance a liner through a pipe. However, it does not address any of the other deficiencies with respect to Andersson et al. Accordingly, withdrawal of the Section 103 rejection of claims 19 and 20 is respectfully requested.

Conclusion

If the Examiner believes that any additional minor formal matters need to be addressed in order to place the present application in condition for allowance, the Examiner is invited to contact the undersigned by telephone at the Examiner's convenience.

In view of the foregoing amendments and remarks, Applicant respectfully submits that the present application, including claims 8-20 is in condition for allowance, and a Notice to that effect is respectfully requested.

Respectfully submitted,

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